Jae Kun Shim

List of Publications by Year
in descending order

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89	2,410	218677	223800
papers	citations	26 h-index	46 g-index

93	93	93	1714
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Evaluation of a lower-body compression garment. Journal of Sports Sciences, 2003, 21, 601-610.	2.0	239
2	Determination of Functional Strength Imbalance of the Lower Extremities. Journal of Strength and Conditioning Research, 2006, 20, 971.	2.1	163
3	Age-related changes in finger coordination in static prehension tasks. Journal of Applied Physiology, 2004, 97, 213-224.	2.5	158
4	The emergence and disappearance of multi-digit synergies during force-production tasks. Experimental Brain Research, 2005, 164, 260-270.	1.5	135
5	A central back-coupling hypothesis on the organization of motor synergies: a physical metaphor and a neural model. Biological Cybernetics, 2005, 92, 186-191.	1.3	132
6	Prehension synergies: trial-to-trial variability and hierarchical organization of stable performance. Experimental Brain Research, 2003, 152, 173-184.	1.5	121
7	Prehension Synergies in Three Dimensions. Journal of Neurophysiology, 2005, 93, 766-776.	1.8	89
8	Physiological Determinants of the Candidate Physical Ability Test in Firefighters. Journal of Strength and Conditioning Research, 2010, 24, 3112-3122.	2.1	80
9	The principle of superposition in human prehension. Robotica, 2004, 22, 231-234.	1.9	76
10	Prehension Synergies: Trial-to-Trial Variability and Principle of Superposition During Static Prehension in Three Dimensions. Journal of Neurophysiology, 2005, 93, 3649-3658.	1.8	67
11	Amputee locomotion: Spring-like leg behavior and stiffness regulation using running-specific prostheses. Journal of Biomechanics, 2013, 46, 2483-2489.	2.1	56
12	Adjustments of prehension synergies in response to self-triggered and experimenter-triggered load and torque perturbations. Experimental Brain Research, 2006, 175, 641-653.	1.5	45
13	Motor variability within a multi-effector system: experimental and analytical studies of multi-finger production of quick force pulses. Experimental Brain Research, 2005, 163, 75-85.	1.5	44
14	Anticipatory adjustments of multi-finger synergies in preparation for self-triggered perturbations. Experimental Brain Research, 2006, 174, 604-612.	1.5	42
15	Finger inter-dependence: Linking the kinetic and kinematic variables. Human Movement Science, 2008, 27, 408-422.	1.4	38
16	The human central nervous system needs time to organize task-specific covariation of finger forces. Neuroscience Letters, 2003, 353, 72-74.	2.1	36
17	Finger coordination during moment production on a mechanically fixed object. Experimental Brain Research, 2004, 157, 457-67.	1.5	36
18	Tactile feedback plays a critical role in maximum finger force production. Journal of Biomechanics, 2012, 45, 415-420.	2.1	35

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19	Age-related changes in multi-finger interactions in adults during maximum voluntary finger force production tasks. Human Movement Science, 2008, 27, 714-727.	1.4	32
20	Effect of Expertise on 3D Force Application During the Starting Block Phase and Subsequent Steps in Sprint Running. Journal of Applied Biomechanics, 2014, 30, 390-400.	0.8	32
21	Hand digit control in children: age-related changes in hand digit force interactions during maximum flexion and extension force production tasks. Experimental Brain Research, 2007, 176, 374-386.	1.5	31
22	Effects of Aquatic Backward Locomotion Exercise and Progressive Resistance Exercise on Lumbar Extension Strength in Patients Who Have Undergone Lumbar Diskectomy. Archives of Physical Medicine and Rehabilitation, 2010, 91, 208-214.	0.9	31
23	Amputee locomotion: Lower extremity loading using running-specific prostheses. Gait and Posture, 2014, 39, 386-390.	1.4	30
24	Strength and isometric torque control in individuals with Parkinsonâ€™s disease. Experimental Brain Research, 2008, 184, 445-450.	1.5	29
25	Amputee Locomotion: Determining the Inertial Properties ofÂRunning-Specific Prostheses. Archives of Physical Medicine and Rehabilitation, 2013, 94, 1776-1783.	0.9	28
26	Strength Training Increases Training-Specific Multifinger Coordination in Humans. Motor Control, 2008, 12, 311-329.	0.6	26
27	Further Evidence to Change the Medical Classification System of the National Wheelchair Basketball Association. Adapted Physical Activity Quarterly, 2004, 21, 63-70.	0.8	25
28	Plastic changes in interhemispheric inhibition with practice of a two-hand force production task: a transcranial magnetic stimulation study. Neuroscience Letters, 2005, 374, 104-108.	2.1	25
29	The forces behind the words: Development of the Kinetic Pen. Journal of Biomechanics, 2008, 41, 2060-2064.	2.1	25
30	Effect of kinetic redundancy on hand digit control in children with DCD. Neuroscience Letters, 2006, 410, 42-46.	2.1	24
31	Amputee Locomotion: Ground Reaction Forces During Submaximal Running With Running-Specific Prostheses. Journal of Applied Biomechanics, 2016, 32, 287-294.	0.8	24
32	Is there a timing synergy during multi-finger production of quick force pulses?. Experimental Brain Research, 2004, 159, 65-71.	1.5	23
33	Joint contact forces when minimizing the external knee adduction moment by gait modification: A computer simulation study. Knee, 2015, 22, 481-489.	1.6	23
34	Prehension synergies: principle of superposition and hierarchical organization in circular object prehension. Experimental Brain Research, 2007, 180, 541-556.	1.5	21
35	Handwriting: Handâ€“pen contact force synergies in circle drawing tasks. Journal of Biomechanics, 2010, 43, 2249-2253.	2.1	21
36	Regular and Random Components in Aiming-Point Trajectory During Rifle Aiming and Shooting. Journal of Motor Behavior, 2009, 41, 367-384.	0.9	20

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37	Grip Surface Affects Maximum Pinch Force. Human Factors, 2011, 53, 740-748.	3.5	20
38	Association of spinal deformity and pelvic tilt with gait asymmetry in adolescent idiopathic scoliosis patients: Investigation of ground reaction force. Clinical Biomechanics, 2016, 36, 52-57.	1.2	20
39	Rotational Equilibrium during Multi-Digit Pressing and Prehension. Motor Control, 2004, 8, 392-404.	0.6	17
40	Multi-digit maximum voluntary torque production on a circular object. Ergonomics, 2007, 50, 660-675.	2.1	17
41	A neuromuscular strategy to prevent spinal torsion: Backward perturbation alters asymmetry of transversus abdominis muscle thickness into symmetry. Gait and Posture, 2013, 38, 231-235.	1.4	16
42	Deficits in motor abilities for multi-finger force control in hemiparetic stroke survivors. Experimental Brain Research, 2016, 234, 2391-2402.	1.5	16
43	Fast Running Does Not Contribute More to Cumulative Load than Slow Running. Medicine and Science in Sports and Exercise, 2019, 51, 1178-1185.	0.4	16
44	The role of tactile sensation in online and offline hierarchical control of multi-finger force synergy. Experimental Brain Research, 2015, 233, 2539-2548.	1.5	14
45	Prehension synergy: Effects of static constraints on multi-finger prehension. Human Movement Science, 2010, 29, 19-34.	1.4	13
46	Hand digit control in children: motor overflow in multi-finger pressing force vector space during maximum voluntary force production. Experimental Brain Research, 2008, 186, 443-456.	1.5	12
47	Multi-finger pressing synergies change with the level of extra degrees of freedom. Experimental Brain Research, 2011, 208, 359-367.	1.5	11
48	Amputee locomotion: Frequency content of prosthetic vs. intact limb vertical ground reaction forces during running and the effects of filter cut-off frequency. Journal of Biomechanics, 2017, 60, 248-252.	2.1	11
49	Effects of training frequency on lumbar extension strength in patients recovering from lumbar dyscectomy. Journal of Rehabilitation Medicine, 2010, 42, 839-845.	1.1	10
50	Difference of motor overflow depending on the impaired or unimpaired hand in stroke patients. Human Movement Science, 2015, 39, 154-162.	1.4	10
51	Wrist Resistance Training Improves Motor Control and Strength. Journal of Strength and Conditioning Research, 2018, 32, 962-969.	2.1	10
52	Cutaneous sensory feedback plays a critical role in agonistâ€“antagonist co-activation. Experimental Brain Research, 2013, 229, 149-156.	1.5	9
53	Amputee Locomotion. American Journal of Physical Medicine and Rehabilitation, 2019, 98, 182-190.	1.4	9
54	Standardized Lab Shoes Do Not Decrease Loading Rate Variability in Recreational Runners. Journal of Applied Biomechanics, 2020, 36, 340-344.	0.8	9

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55	Effects of a novel method of acute tryptophan depletion on plasma tryptophan and cognitive performance in healthy volunteers. Psychopharmacology, 2004, 177, 217-223.	3.1	7
56	Prehension Synergy: Use of Mechanical Advantage During Multifinger Torque Production on Mechanically Fixed and Free Objects. Journal of Applied Biomechanics, 2012, 28, 284-290.	0.8	7
57	Effect of Resistance Training of the Wrist Joint Muscles on Multi-Digit Coordination. Perceptual and Motor Skills, 2015, 120, 816-840.	1.3	7
58	Handwriting: Three-Dimensional Kinetic Synergies in Circle Drawing Movements. Motor Control, 2012, 16, 329-352.	0.6	6
59	The hypoalgesic effect of remote tactile sensory modulation on the mechanical sensitivity of trigger points: A randomized controlled study. NeuroRehabilitation, 2014, 35, 607-614.	1.3	6
60	Intra-Auditory Integration Improves Motor Performance and Synergy in an Accurate Multi-Finger Pressing Task. Frontiers in Human Neuroscience, 2016, 10, 260.	2.0	6
61	Small changes in ball position at address cause a chain effect in golf swing. Scientific Reports, 2021, 11, 2694.	3.3	6
62	Efficacy of rhythmic exercise and walking exercise in older adults' exercise participation rates and physical function outcomes. Geriatrics and Gerontology International, 2017, 17, 2311-2318.	1.5	5
63	Sensory-to-Motor Overflow: Cooling Foot Soles Impedes Squat Jump Performance. Frontiers in Human Neuroscience, 2020, 14, 549880.	2.0	5
64	Vibration Suppression of a Composite Prosthetic Foot Using Piezoelectric Shunt Damping: Implications to Vibration-Induced Cumulative Trauma. IEEE Transactions on Biomedical Engineering, 2021, 68, 2741-2751.	4.2	5
65	Inter-joint synergies increase with motor task uncertainty in a whole-body pointing task. Neuroscience Letters, 2012, 512, 114-117.	2.1	4
66	Examining impairment of adaptive compensation for stabilizing motor repetitions in stroke survivors. Experimental Brain Research, 2017, 235, 3543-3552.	1.5	4
67	Inter-dependence between mathematically independent variability components in human multi-finger force control. Neuroscience Research, 2020, 158, 16-20.	1.9	4
68	Unveiling the neuromechanical mechanisms underlying the synergistic interactions in human sensorimotor system. Scientific Reports, 2021, 11, 203.	3.3	4
69	Changes in Finger Coordination and Hand Function with Advanced Age. , 2006, , 141-159.		4
70	Finger force enslaving and surplus in spinal cord injury patients. Experimental Brain Research, 2009, 195, 627-633.	1.5	3
71	EVALUATION OF GAIT ASYMMETRY USING FORCE PLATES VERSUS ACCELEROMETER. Journal of Mechanics in Medicine and Biology, 2018, 18, 1850015.	0.7	3
72	Intra-auditory integration between pitch and loudness in humans: Evidence of super-optimal integration at moderate uncertainty in auditory signals. Scientific Reports, 2018, 8, 13708.	3.3	3

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73	Optimization and Validation of a Biomechanical Model for Analyzing Running-Specific Prostheses. IFMBE Proceedings, 2010, , 365-367.	0.3	3
74	Dynamic Modeling and Simulation of Electric Scooter Interactions With a Pedestrian Crowd Using a Social Force Model. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 16448-16461.	8.0	3
75	Baseline Correlates Of Running Injury. Medicine and Science in Sports and Exercise, 2016, 48, 170.	0.4	2
76	Aging differentially affects online control and offline control in finger force production. PLoS ONE, 2018, 13, e0198084.	2.5	2
77	Dance training improves the CNSâ€™s ability to utilize the redundant degrees of freedom of the whole body. Scientific Reports, 2020, 10, 22197.	3.3	2
78	Physiological Determinants of the Candidate Physical Ability Test in Firefighters. Medicine and Science in Sports and Exercise, 2010, 42, 585-586.	0.4	1
79	Identifying Prosthetic Capabilities That Define Functionality of Individuals With Amputation. Journal of Prosthetics and Orthotics, 2021, Publish Ahead of Print, .	0.4	1
80	Age-related Changes in Multi-finger Synergy during Constant Force Production with and without Additional Mechanical Constraint. Korean Journal of Sport Biomechanics, 2016, 26, 175-181.	0.1	1
81	Inter-Personal Motor Synergy: Co-working Strategy Depends on Task Constraints. Journal of Neurophysiology, 2021, 126, 1698-1709.	1.8	1
82	The Effect of Frequency of Transcutaneous Electrical Nerve Stimulation (TENS) on Maximum Multi-finger Force Production. Korean Journal of Sport Biomechanics, 2016, 26, 93-99.	0.1	1
83	Analysis of the Dynamic Balance Recovery Ability by External Perturbation in the Elderly. Korean Journal of Sport Biomechanics, 2017, 27, 205-210.	0.1	1
84	Effect of Digital Anesthesia on Multi-Finger Synergies during a Sub-Maximal Constant Force Production Task. Proceedings of the Human Factors and Ergonomics Society, 2011, 55, 1270-1273.	0.3	0
85	T54. The difference of contralateral motor overflow according to spasticity among people with stroke. Clinical Neurophysiology, 2018, 129, e22.	1.5	0
86	Prehension Synergy: Use of Mechanical Advantage during Multi-finger Torque Production on Mechanically Fixed- and Free-Object. IFMBE Proceedings, 2010, , 368-371.	0.3	0
87	Development of Core Strength Training Equipment and Its Effect on the Performance and Stability of the Elderly in Activities of Daily Living. Korean Journal of Sport Biomechanics, 2016, 26, 229-236.	0.1	0
88	Analysis of Postural Stability in Response to External Perturbation Intensity in Dancers and Non-dancers. Korean Journal of Sport Biomechanics, 2016, 26, 427-432.	0.1	0
89	The Effects of 12 Weeks of Step Training Using Rhythmic Balance Device on Response Time for the Elderly. Korean Journal of Sport Studies, 2017, 56, 573-582.	0.3	0